

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,970,171 B2  
APPLICATION NO. : 09/851940  
DATED : November 29, 2005  
INVENTOR(S) : Baraff et al.

Page 1 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page:

At item (54), in the second line of the title, please delete "INTESECTIONS" and insert --INTERSECTIONS--.

On page 2:

Under OTHER PUBLICATIONS, in the second line of the first entry (Bridson), please delete "contract" and insert --contact--.

In the claims:

In claim 1, column 10 at line 62, please delete "path; and" and insert -- path, the determining comprising:

selecting an arbitrary edge of a mesh that crosses said intersection path where said arbitrary edge is formed by vertices  $u$  and  $v$  and where said mesh contains said intersection path;

performing a search of said mesh, radiating from one of said vertices  $u$  and  $v$ , identifying all vertices in all of said edges that cross said intersection path, and defining the set of vertices identified as a playpen;

tracing said intersection path and identifying vertices, within said playpen, on a left side of said intersection path as left and retracing said intersection path in an opposite direction and identifying vertices, with said playpen, on a right side of said intersection path as right;

determining whether vertices adjacent to vertices identified as left and right lie outside of said playpen;

discarding said intersection path when at least one of both left and right identified vertices lie outside said playpen; and

determining whether at least one vertex adjacent to said right identified vertices lies outside said playpen; and

characterizing each of said left identified vertices as contained within said intersection path when at least one vertex adjacent to said right identified vertices lies outside said playpen and characterizing each of said right identified vertices as contained within said intersection path when at least one vertex adjacent to said left identified vertices lies outside said playpen; and--.

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In claim 2, column 11 at line 1, please delete "determining".

In claim 2, column 11 at line 8, please delete "add" and insert -- and --.

In claim 5, column 11 at line 39, please delete "comprises;" and insert -- comprises: --.

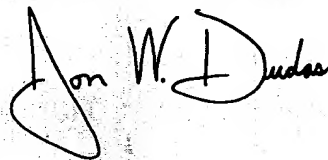
In claim 5, column 11 at line 47, please delete "disconnect regions" and insert -- disconnected region --.

In claim 6, column 12 at line 26, please delete "comprising;" and insert -- comprising: --.

In claim 10, column 13 at line 41, please delete "comprises;" and insert -- comprises: --.

Signed and Sealed this

Fifteenth Day of August, 2006

A handwritten signature in black ink, appearing to read "Jon W. Dudas", is written over a faint, circular embossed seal of the United States Patent and Trademark Office.

JON W. DUDAS  
*Director of the United States Patent and Trademark Office*